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Analysis of The Effect of Project Manager Quality on The Performance of The Time of The Palantaran-Kasongan Road Central Kalimantan Exchange

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Abstract: The project manager has the task and responsibility of leading the project implementation by the plan, can manage various types of activities, a large amount of labor, equipment and determine the methods used to achieve the project objectives. However, the development of businesses in the field of construction services that are so fast is not comparable to the improvement in the quality of work produced. There are still many results found that do not meet the desired quality. On the other hand, the Katingan Regency Government as the owner of the job expects the results of the work carried out by the objectives of a project, namely the exact cost, time, and quality of work. The Palantaran - Kasongan road widening project in Central Kalimantan, (2) Gaining a positive influence on the quality of project managers on the performance of the Palantaran - Kasongan road widening project implementation, (3) Obtaining essential factors in improving the quality of project managers. After regression analysis, it was found that (1) In general the quality of the project manager consisting of Formal Education, Expertise, Work Experience, Informal Education, Supporting Ability was very influential (significant) on the time performance of the Palantaran - Kasongan road widening project, with significant probability ANOVA analysis error is less than 5%. (2) The quality of the project manager has a positive influence of 92.2% on the time performance of the Palantaran - Kasongan road widening project. Simultaneous factors have a positive effect on the time performance of the Palantaran road widening project implementation - Kasongan including Formal Education, Expertise, Work Experience, Informal Education, Supporting Ability. (3) After selecting the regression model with the Stepwise method, it was found that the most influential on the time of project implementation is Rank 1 Supporting Capacity Factor, with a weighting value of 0.257, Rank 2 Expertise, with a weighting value of 0.256, Rank 3 of Formal Education, with a weight of 0.239, Rank 4 for Informal Education, with a weight of 0.217

Keywords: Project manager, Construction Services, Methods Stepwise

1. Introduction

Palantaran-road of Kasongan is one part of the national road that connects the city with the town of Sampit Palangka Raya with the number and length of the internode 32,012 62.900 km roads. One package of work implemented by the PPK Palantaran – Production – Tangkiling in the fiscal year 2015 is the widening of the highway Palantaran – Kasongan (the STATE BUDGET).

This work intends to improve the stability of the structure of the road from the roads, to provide maximum traffic service, comfortable and safe for the road user through the Palantaran road – Kasongan Central Kalimantan. However unfortunate, the development effort in the area of construction services that are so fast is not worth the increased quality of the work produced. There are still many found work carried out do not meet the desired quality. On the other hand, Katingan Regency Government as the owner of the job is highly expecting the results of the work carried out by the objectives of a project, i.e., cost, time, and quality of work (Suharto, 1995). Quality resources,



implementation, and management methods which are less so well during the project already underway into the cause, ranging from the planning process, implementation or supervision.

In addition to that the reality in the field often and always the case differences of perception between the contractors and consultants as the executors as trustees and the Planner, the more so if the planners were not involved in the project implementation period. The result of such differences arise two things, namely the increased project costs and delays in the project completion time of the planned schedule. This article aims to get (1) significance of the influence of the quality of the project managers on performance time, road widening project implementation (2) the positive impact the quality of the project managers on performance time, road widening project implementation (3) factors to look for in improving the quality of the project manager

2. Material and Methods

2.1. Construction Project

According to [1], the project is an activity once through with limited time and resources to achieve the result. [2] argues that in the management of the project there are three interrelated components, namely budget cost, schedule or the time and scope of work. According to [3] [4] [5], the project is the allocation of resources in a certain period and coordination against events that are related to achieving an overall purpose, while facing the challenges are unique and can be estimated.

In article 1 of the Act number 18 Year 1999 about construction services explained that the construction work is a whole or part of a series of planning activities and/or implementation with scrutiny that includes architectural work, civil, mechanical, electrical, environmental and governance respectively, along with its furnishings, to realize a building or other physical form [6] [7].

Of some of these opinions can be concluded that a construction project is a set of activities that once implemented, it there is a process to cultivate resources project activity results in the form of a building, the dip Roses based on three constraints (*triple constraint*), i.e., time, cost and quality.

2.2. The Parties In The Project

Kushendrawan [8] States that in resolution or organizing project involved parties who have specific roles and interests over the success of the project, i.e., the owner of the project, implementing projects or contractors and consultants (project the Planner or supervisor). According to [9], the third parties involved in the construction project connecting each other both functionally (patterns of relations relating to the functions of the parties), or formally the work (patterns of relationships about cooperation between the parties involved in a construction project which confirmed with a contract).

a. The Owner Of The Project

In article 1 of the Act number 18 the Year 1999 about construction services, the owner of the project, also known as service users are those individuals or entities as the giver of the task or job/project owner requiring construction services [6]; According to [9], the owner of the project or task giver or user of the service is the person or entity who owns the project and provide jobs or sent to the position gives service providers (consultants and contractors) and who pays the cost of the work. Users of the service can be either an individual or entity or institution or Government Agency and private. According to [10], as the proponent of the project, the project owner role is very decisive in the decision making. Throughout the project cycle, the part of the owner of the fickle project.

b. Implementing projects or Contractors

In article 1 of the Act number 18 Year 1999 about construction services, achieving construction is a provider of individual people or business entities that declared the expert professionals in the field of implementation of construction services that are able to organize its activities to realize an outcome of planning into the shape of a building or other physical form [6]. According to [9], implementing projects or contractors is a person/entity who receives the work and organizes the execution of the work by a predetermined fee based on image plans and rules and terms the set.

c. Project Consultant (planners and Supervisors)

In article 1 of the Act number 18 the Year 1999, about construction services [6][11]. Construction Planner is a provider of individual people or business entities that declared the expert professionals in the field of construction services planning capable of embodying the work in the form of building planning documents or forms other physical; and supervisor of the construction is the service provider of the person. According to [10], consultants is a company that has the expertise, skill, and unique talents and available for those who need it in Exchange for a certain amount of wages.

2.3. The Constraints Of The Project

All projects must have a purpose, the final product or work end so that in the process of reaching that goal, has determined some the limitations of the budget cost, schedule, and quality to be achieved. The third constraint is called three project constraints include:

1. Budget

The budget must complete the project. In major projects and an extended period (in the plural) then the budget is broken down into several totaling tailored to needs.

2. Schedule

Each project must be carried out by the period specified and mutually agreed.

3. The quality of

The result of a project must meet the specifications that have been required and expected to operate correctly within the time allowed. So, qualify the quality means being able to fulfill the intended or known as *fit for intended use*.

2.4. Reliability and Validity

Reliability and validity indicate the overall quality of the data collection process in a study, from the translation of concepts to the time the data is ready for analysis. Reliability concerns the problem of the accuracy of the measuring instrument in the form of a list of questions, interviews, and others. This accuracy can be assessed by statistical analysis to find out the error measurement or incorrect measurement. Validity is more abstract and more difficult to measure, in determining the validity of a measuring instrument in question whether the measuring instrument indeed reflects the variable or concept to be measured [12].

3. Results and Discussion

3.1. The Determination Of Sample Research

Research On samples taken as respondents is 50 people involved in the implementation of the road widening project Palantaran - Production, with details as follows: consultant 15 people, project staff 13 people, contractor 22 people.

3.2. Questionnaire Feasibility Test

As a first step, questionnaires distributed to 31 people as respondents. After the questionnaire is filled in by the respondent, then the feasibility of the survey is carried out, namely item test, validity, and reliability.

3.3. Item Test

Hypothesis testing :

Ho: $r_c < 0.3$: variables not selected

H1: $r_c \geq 0.3$: selected variable

By using the help of the SPSS program, the corrected correlation coefficient is obtained from the Corrected Item-Total Correlation as follows:

Table 1. Item Test Results

Variable	Indicator	r_c	Description
Formal education (X_1)	X ₁₁	0,508	selected
	X ₁₂	0,630	selected
	X ₁₃	.0,704	selected
Expertise (X_2)	X ₂₁	0,892	selected
	X ₂₂	0,925	selected
Work experience (X_3)	X ₃₁	0,799	selected
Informal Education (X_4)	X ₄₁	0,762	selected
	X ₄₂	0,831	selected
	X ₄₃	0,897	selected
Supporting capabilities (X_5)	X ₅₁	0,820	selected
	X ₅₂	0,857	selected
	X ₅₃	0,824	selected
The Performance Of The Implementation Time (Y)	Y ₁	0,746	selected
	Y ₂	0,530	selected
	Y ₃	0,475	selected
	Y ₄	0,509	selected
	Y ₅	0,577	selected

Source: Processed data

3.4. Validity test

- Factor Analysis

a. Olkin Keyer Meyer Test (KMO) and Bartlett Test

KMO and Bartlett's test is used to test the beginning of whether the data can be broken down into some factors. With the help of the SPSS program, the following obtained:

Table 2. KMO and Bartlett Test Results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.663
Approx. Chi-Square			470.006
Bartlett's Test of Sphericity	df		66
	Sig.		.000

Source: Processed data

The KMO and Bartlett's test values are 0.663 with a significance of 0,000. Because the value is above a value of 0.6 and a significance probability is less than the value of 0.05, the variable can be broken down into some factors.

b. Total Variance Explained

Table 3. Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.117	67.645	67.645	7.818	65.147	65.147
2	1.198	9.986	77.631			
3	.899	7.488	85.119			
4	.527	4.389	89.508			
5	.392	3.270	92.778			
6	.279	2.327	95.104			
7	.257	2.138	97.242			
8	.136	1.130	98.372			
9	.119	.988	99.360			
10	.057	.475	99.835			
11	.016	.131	99.965			
12	.004	.035	100.000			

Extraction Method: Principal Axis Factoring.

Source: Processed data

Table 3 describes the *Extraction Sums of Squared Loadings* cumulative of 65,147 %. So the value *Extraction Sums of Squared Loadings* cumulative $\geq 60\%$, then it can be concluded that the data is valid, and can use for further analysis.

3.5 Reliability Test

Test the hypothesis:

$H_0: \alpha \leq 0.6$: questionnaire not reliability

$H_1: \alpha > 0.6$: reliable questionnaire: 0.61

Table 4. Reliability test results Cronbach's Alpha

Indicator	Cronbach's Alpha if Item Deleted
Education level (x 11)	946.
Educational specialties (x 12)	944.
Accreditation of educational institutions (x13)	942.
Skill qualification (x 21)	939.
This type of expertise (x 22)	938.
The similar work experience (x31)	940.
The intensity of the informal education (x41)	941.
Informal education specialties (x42)	940.
Informal education institutions accreditation (x43)	939.
Language skills (x 51)	940.
The ability of culture (x52)	939.
Understanding the territory (x53)	940.
Timeliness of appropriate contract (y1)	941.
The precision of image quality suitable TOR (y2)	947.
Accuracy specifications according to TOR (y3)	948.
The accuracy of the calculation of the price match TOR (y4)	946.
The intensity of the changes at this stage of implementation (y5)	948.

Source: Processed data

From table 4 it brings all the values $\alpha > 0.6$, then the H_0 is rejected, it means that the questionnaire was quite variable overall reliability or consistent in performing the functions

3.6. Multiple Linear Regression Model Equation

The equations of the regression models between The performance of the implementation time (Y) with Formal Education (X_1), Skills (X_2), Pengalaman work (X_3), Informal education (X_4), the ability supporters (X_5). By using the SPSS program assistance is obtained as follows:

Table 5. The Coefficient Of Regression Models

Model	Unstandardized Coefficients		Component Coefficients	t	SIG.
	B	Std. Error.	Beta		
(Constant)	.079	.182		.437	.664
Formal education (X 1)	.207	.064	.236	3.217	.002
Expertise (X 2)	.260	.084	.276	3.107	.003
Work experience (X 3)	.082	.059	.114	1.395	.170
Informal education (X 4)	.212	.072	.242	2.964	.005
Supporting capabilities (X 5)	.192	.118	.199	1.624	.112

Source: Processed data

From the regression model coefficients in table 8 the regression model equation is obtained as follows:

$$Y = 0,079 + 0,207 X_1 + 0,260 X_2 + 0,082 X_3 + 0,212 X_4 + 0,192 X_5$$

3.7 Multicollinearity Test

Multicollinearity is a linear correlation between the variable free. To check for the existence of multicollinearity analyzed variance inflation factor (VIF), whereby when numeric VIF on the respective variables are under number 10, then no symptoms [13]. By using the SPSS program assistance, the results of calculation of multicollinearity among variables X₁, up to X₅ is as follows:

Table 6. Test Results Multicollinearity

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
1 Formal education (X 1)	.329	3.042
Expertise (X 2)	.223	4.485
Work experience (X 3)	.265	3.772
Informal education (X 4)	.265	3.769
Supporting capabilities (X 5)	.117	8.551

Source: Processed data

From table 6 it appears that the variables of VIF under number 10, then symptoms of multicollinearity does not occur. So the regression analysis can be performed.

3.8. Autocorrelation Test (Independent Testing)

Test autocorrelation aiming to find out the correlation between the value of the dependent variable in the observation (autocorrelation), by using the Durbin Watson test as follows:

a. Determine the hypothesis test:

Table 7. Durbin Watson Test Results

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate	Durbin-Watson
1	.960 ^a	.922	.914	.1515	1.775

Source: Processed data

3.9. Quality Test of Multiple Linear Regression Models

The quality test of the regression model was carried out through the analysis of variance as follows:

a. Hypothesis testing:

Ho: there is no influence between Formal Education (X₁), Expertise (X₂), Organizational System, Work Experience (X₃), Informal Education (X₄), Supporting Ability (X₅) on Implementation Time Performance (Y)

H₁: there is influence between Formal Education (X₁), Expertise (X₂), Organizational System, Work Experience (X₃), Informal Education (X₄), Supporting Ability (X₅) on Implementation Time Performance (Y)

b. Menghitung statistic test

Table 8. Variance Analysis of Regression Models

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	11.995	5	2.399	104.534	.000 ^b
Residual	1.010	44	.023		
Total	13.005	49			

Source: Processed data

b. Because the probability value is the sig. <0.05, then Ho is rejected. So there is a strong (significant) influence between Formal Education (X₁), Expertise (X₂), Work experience (X₃), Informal Education (X₄), Supporting ability (X₅) on Implementation Time Performance (Y)

Table 9 The Coefficient of Selected Regression Equations

Model	Unstandardized Coefficients		Standardized Coefficients	T
	B	Std. Error	Beta	
(Constant)	.398	.233		1.710
1 Supporting capabilities (X5)	.879	.057	.912	15.392
(Constant)	.146	.198		.739
2 Supporting capabilities (X5)	.623	.070	.646	8.877
Pendidikan formal (X1)	.314	.064	.357	4.911
(Constant)	.046	.191		.239
3 Supporting capabilities (X5)	.412	.105	.428	3.918
Formal education (X1)	.312	.060	.355	5.162
Keahlian (X2)	.236	.091	.250	2.580
(Constant)	.012	.177		.066
4 Supporting capabilities (X5)	.257	.110	.267	2.342
Formal education (X1)	.239	.061	.272	3.918
Expertise (X2)	.256	.085	.272	3.023
Informal education (X4)	.217	.072	.247	2.997

Source: Processed data

Thus from table 9, the best model as the most influential model for workplace relations is:

$$Y = 0,012 + 0,257 X_5 + 0,239 X_1 + 0,256 X_3 + 0,217 X_4$$

4. Conclusions

From the results of the analysis and discussion can be concluded as follows:

1. In general the quality of the project manager consisting of Formal Education, Expertise, Work Experience, Informal Education, Supporting Ability is very influential (significant) on the time performance of the Palantaran - Kasongan road widening project implementation in Central Kalimantan. Indicated by the probability of error significance in the ANOVA analysis of less than 5%.
2. The quality of the project manager has a positive influence on the performance of the implementation of the Palantaran road project - Kasongan Central Kalimantan. Formal Education, Expertise, Work Experience, Informal Education, Supporting ability, simultaneously have a positive effect on the performance of the time of the Palantaran road widening project - Kasongan Central Kalimantan. The magnitude of the influence indicated by the coefficient of determination of 92.2%.
3. Factors that must be consider in improving the quality of project managers implementing the Palantaran road widening project - Kasongan Central Kalimantan are expertise and work experience. seen after the selection of regression models using the Stepwise method; it found that the most Can be influential on the project implementation time is as follows
 Ranking 1: Supporting ability factors, with a weighting value of 0.257
 Ranking 2: Expertise, with a weight of 0.256
 Classification 3: Formal education, with a load of 0.239
 Ranking 4: Informal education, with a capacity of 0.217

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